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**Patent and Trademark Office**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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EXAMINER

MORAN, M

ART UNIT

PAPER NUMBER

1631

DATE MAILED: 08/01/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.

09/034,336

Applicant(s)

Aga et al.

Examiner

Marjorie Moran

Group Art Unit

1631

☒ Responsive to communication(s) filed on Feb 22, 2000

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 5, 6, 9, 10, and 27-30 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 5, 6, 9, 10, and 27-30 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☒ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

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### **DETAILED ACTION**

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

#### ***Continued Prosecution Application***

A preliminary amendment was filed 2/22/00, before the mailing date of the previous office action (4/10/00), but was not entered until after the office action had been mailed. In addition, although the office action itself did not indicate finality, the cover sheet of that office action improperly indicated that the action was a final action. The examiner regrets the confusion and hereby withdraws any finality attributed to the office action of 4/10/00. The amendments filed 2/22/00 and 6/23/00 have been entered.

Claims 5-6, 9-10, and 27-30 are pending. An action on the merits of the pending claims follows.

#### ***Claim Rejections - 35 USC § 112***

Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Claim 5 recites “said plant which is in a juicy form of .. (an) extracted plant-edible-part” in lines 7-8. An “extracted plant-edible-part” of a plant in juicy form has no antecedent basis, therefore the claim is indefinite.

***Claim Rejections - 35 USC § 103***

Claims 5-6, 9-10, and 27-30 are newly rejected under 35 U.S.C. 103(a) as being unpatentable over MARUTA *et al.* (A), as supported by CARDONA.

Applicant's arguments with respect to claims 5-6, 9-10, and 27-30 have been considered but are moot in view of the new ground(s) of rejection. Applicant's arguments filed 2/22/00 and 6/23/00 are addressed below.

The amended claims recite a method for inhibiting the decrease of naturally occurring active-oxygen-eliminating activity in a plant wherein the plant is sliced or disrupted or an edible plant part is disrupted by incorporating an inhibitory agent, specifically trehalose, into the sliced or disrupted plant in an aqueous system.

As previously set forth and maintained, MARUTA teaches addition of trehalose to various foods, and makes obvious a method of stabilizing antioxidants in “juicy” foodstuffs. MARUTA specifically teaches that trehalose may be added to juices (col. 13, line 46) and to fruit paste or spread, jams or marmalade (col. 12, lines 22-23). Fruit pastes, spreads, jams, and jelly usually comprise “disrupted” plant edible parts. Marmalade comprises sliced fruit rinds.

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MARUTA also teaches adding trehalose to sliced pickles (col. 13, line 27). MARUTA also teaches addition of trehalose to orange juice, as previously set forth. As many fruits and vegetables, specifically oranges, are known to comprise “naturally occurring” antioxidants (e.g. vitamins A and C are found in oranges, strawberries, apples, etc. commonly used to make juices and jams), addition of trehalose to jams, jellies, juices, etc. would necessarily result in stabilization of the “naturally occurring” antioxidants therein.

Applicant argues that MARUTA does not teach stabilization of “naturally occurring” antioxidants. However, on page 4 of the response filed 6/23/00, applicant admits that MARUTA teaches trehalose as a “stabilizer for biologically active substances susceptible to loss of their effective ingredients, and *activities*” (emphasis added by examiner) wherein the biologically active substances include vitamins and enzymes. Applicant further argues that stabilization of the biologically active substances would not result in stabilization of naturally occurring “active-oxygen-eliminating” activity as the biologically active substances do not have such activity. As previously set forth, it is noted that “active-oxygen-eliminating” is a broader term than antioxidant. However, the examiner maintains that an antioxidant is a species of the genus of “active-oxygen-eliminating” agents and maintains that a teaching to stabilize antioxidant activity is a teaching for a reduction in the inhibition of such activity. As previously set forth, examples of “biologically active substances” taught by MARUTA include thiamin, riboflavin, and L-ascorbic acid. Riboflavin, thiamine, and ascorbic acid are well known in the art to be antioxidants, as supported by CARDONA (abstract). Addition of trehalose to any food substance

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comprising these antioxidant compounds would therefore result in their stabilization. MARUTA teaches that trehalose can be added to various fruit jams, jellies, and juices, etc., wherein many fruits and vegetables comprise vitamins, and wherein orange juice, specifically taught by MARUTA, is known to comprise vitamin C (ascorbic acid). For all of the reasons previously set forth and set forth above, the method claimed is obvious and the rejection of claims 5-6, 9-10, and 27-30 is maintained.

### ***Conclusion***

Claims 5-6, 9-10 and 27-30 are again rejected.

Papers relating to this application may be submitted to Technology Center 1600 by facsimile transmission. The number of the fax machine for official papers in Technology Center 1600 is (703) 308-4556. Any document submitted by facsimile transmission will be considered an official communication unless the cover sheet clearly indicates that it is an informal communication.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marjorie Moran whose telephone number is (703) 305-2363. The examiner can normally be reached on Monday through Friday from 7:30 a.m. to 4:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, a supervisory examiner, Michael Woodward, can be reached at (703) 308-4028. Any inquiry of a general nature or relating to the status of this

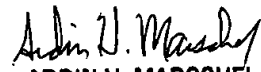
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application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1235.

 Marjorie A. Moran  
Patent Examiner  
Art Unit 1631

  
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PRIMARY EXAMINER